



# Lantiq™ VINAX™-L/-M

## VDSL2/ADSL/2/2+ Central Office Chipset

### Features

- Highly optimized chip sets matching all VDSL2 profiles from 8a-d up to 30a
- Per port support of legacy ADSL/2/2+ backward compatibility
- 8 port (-M) and 4 port (-L) granularity
- Low power consumption
- Programmable transmit power up to 20.5dBm (with opt. LD supply)
- Extended US0 band up to 552kHz (Single/Double/Quadruple US0)
- Region specific bandplans and RFI-notches fully programmable
- Support for Long-Reach VDSL2
- 4 port (-M) and 2 port (-L) Ethernet PHY-Layer bonding supported
- System support for Dual Latency
- Per port independent ATM and PTM framing configuration
- Pre-emption and per bearer flow-control for improved system QoS
- On-Line reconfiguration including Seamless Rate Adaptation (SRA) and Dynamic Rate Repartitioning (DRR)
- Virtual noise for higher system stability
- Diagnostic modes DELT and SELT
- Worldwide bandplan requirements covered with one single hybrid design
- Industrial temperature range from -40°C up to +85°C

VINAX™ V2 is the newest generation of VDSL2/ADSL/2/2+ chipsets for Central Office based applications. It includes dedicated variants for 17MHz and 30MHz applications. These options allow system vendors to offer highly optimized VDSL2/ADSL2+ systems for Exchange, Cabinet, and MxU market segments.

The -M and -L variants are optimized in terms of their density, power, and cost to support the large-scale deployment of VDSL2 technology in next-generation telecom networks. Both variants are based upon a 3-chip architecture, and support line-card densities of 48 ports or higher. They are ADSL/2/2+ backwards compatible (up to 20.5dBm) and offer full programmability (PSD, band plan, etc.) without any need for external filters. VINAX™-M has an 8 port granularity for high-density Exchange and Cabinet applications whereas VINAX™-L has a 4-port granularity for lower-density MxU applications.

To meet the increasing demand for IPTV and VoIP applications, VINAX™ V2 supports enhanced Quality-Of-Service functionalities including Retransmission, Seamless-Rate-Adaptation, Dual Latency, Pre-Emption, and Virtual Noise. To extend the range of VDSL2 long-haul applications, VINAX™ V2 offers bonding functionality of 2 ports (VINAX™-L) or 4 ports (VINAX™-M).

### Applications

- Central Office and Remote ATM/IP DSLAMs
- Digital Loop Carrier (DLC)
- Integrated Packet Voice & Data (IPVD) line cards
- Multi Service Access Network Platforms (MSAN)
- Multiple Dwelling/Tenant Units (MDU/MTU) networking
- Optical Network Termination/Unit (ONU/ONT)
- FTTC/FTTB & LAN extension

# Lantiq™ VINAX™-L/-M

## VDSL2/ADSL2/2+ Central Office Chipset

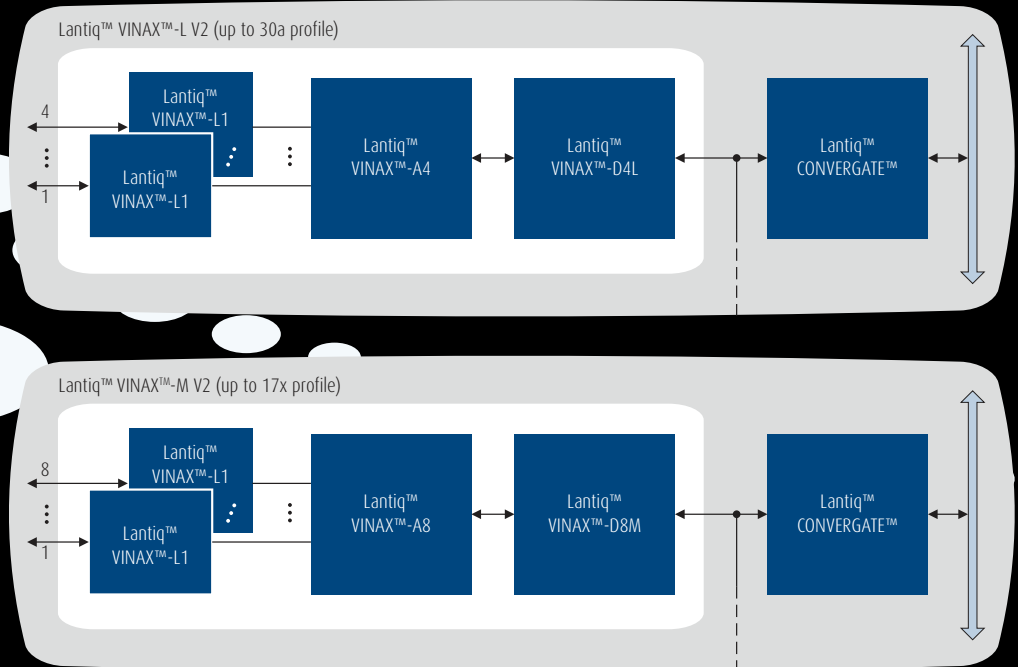
### Supported Standards

- VDSL2 (G.993.2)
- ADSL2/2+ (G.992.1, G.992.3, G.992.5)
- VDSL1 (G.993.1, T1.424, TS 101.270)
- EFM (IEEE 802.3 ab)
- Retransmission G.993.4

### Interfaces

- R-MII, S-MII, SFS-MII
- POSPHY - L2
- MDIO, parallel host
- JTAG interface

### VINAX™ Architecture



### Product Summary

Product	Sales Code	Description	Package
VINAX™-D4L	PEF 88004	4-channel 30 MHz DFE	PG-LBGA-324-15
VINAX™-D8M	PEF 88008	8-channel 17 MHz DFE	PG-LBGA-324-15
VINAX™-A4	PEF 88204	4-channel 30 MHz AFE	PG-LBGA-324-12
VINAX™-A8	PEF 88208	8-channel 17 MHz LD	PG-LBGA-324-12
VINAX™-L1	PEF 88601	1-channel 30 MHz LD	P-TSSOP-16



How to reach us: <http://www.Lantiq.com>

Published by Lantiq  
85579 Neubiberg, Germany

© 2009 Lantiq. All Rights Reserved.

**Legal Disclaimer:** The information given in this Product Brief shall in no event be regarded as a guarantee of conditions or characteristics. With respect to any examples or hints given herein, any typical values stated herein and/or any information regarding the application of the device, Lantiq hereby disclaims any and all warranties and liabilities of any kind, including without limitation, warranties of non-infringement of intellectual property rights of any third party.

**Information:** For further information on technology, delivery terms and conditions and prices, please contact the nearest Lantiq Office ([www.Lantiq.com](http://www.Lantiq.com)).

**Warnings:** Due to technical requirements, components may contain dangerous substances. For information on the types in question, please contact the nearest Lantiq Office. Lantiq components may be used in life-support devices or systems only with the express written approval of Lantiq, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.

Order Number: PB-e-0007-v1